

## REMARKS

The Office Action mailed on April 28, 2004 has been carefully considered and the Examiner's remarks are appreciated. Claims 1, 2, 14, and 15 were previously canceled. And claims 3, 4, 6, 13, and 16 have been amended, and new claims 17-24 have been added. Therefore claims 3-13, and 16-24 are presented for examination, with support for the amendments found in the Specification, Claims, and Drawings. In response to the Office Action, Applicants respectfully request reconsideration in view of the above amendments and the following remarks.

### Allowable Subject Matter: Objection to Claims 6-13

The Examiner objected to claims 6-13 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have adopted the Examiner's suggestion with corresponding new claims 17-24.

### Discussion of the Rejections Under 35 USC §102(e)

The Examiner rejected claims 3-5, and 16 under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 5,955,886 to Cohen et al, (hereinafter "Cohen"). It is respectfully submitted, however, that these rejections are inappropriate in view of MPEP §2131 as follows in part:

*"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference"*

Cohen does not expressly or inherently describe or utilize a “*glow discharge ionizer*” or a “*glow discharge detector*” as required in Claim 3 of the present application. Instead, Cohen utilizes corona discharges to effect ionization, which is known in the art as an alternative and fundamentally different ion source than DC glow discharges. And detection is achieved in Cohen by a collector electrode tube 18 connected to detection electronics (i.e. an electrometer and readout instruments, described in col. 2, lines 51-54). The collector electrode tube is a markedly different device/construction from the glow discharge detector, and operates under a fundamentally different detection methodology. The Examiner is encouraged to read the U.S. Pat. No. 6,457,347 to Koo et al, a reference cited in the present application, for a description of the detection methodology provided by such a glow discharge detector utilized in the present invention.

Furthermore, Cohen also does not expressly or inherently describe a glow discharge ionizer having “*a pointed member coaxially mounted in said hollow tube,*” as suggested by the Examiner referring to elements 46 and 22 in Figure 1 of Cohen. And Cohen also does not expressly or inherently describe a glow discharge detector having “*a pointed member coaxially mounted in said hollow tube*” as suggested by the Examiner referring to elements 46, 18, and 60 in Figure 1. It is first notable that element 22 in Figure 1 is incorrectly pointing to the inner electrode tube 14; element 22 is actually the annular gap where the corona discharge occurs. As such, Applicants assume the Examiner meant to refer to element 14 and not 22. Applicants respectfully submit that

the inner electrode tube 14 and the collector electrode tube 18 are not "*pointed member(s)*" as called for in claim 3. As shown in Figures 1 and 2 of Cohen, the tubular configurations of 14 and 18 have blunt open ends. Moreover, Applicants submit that the "*coaxially mounted*" arrangement required in claim 3 is different from the (a) metal tube 46 and inner electrode tube 14, and (b) metal tube 46 and collector tube 18 arrangements of Cohen. Each of the metal tubes 46 is a component of the insulated tube feedthroughs 44, and is soldered to the respective electrode to provide structural support, electrical insulation, and hermetic sealing (col. 4, lines 40-48). In contrast, the hollow tubes of the present invention are flow tubes through which analytes pass for ionization and detection.

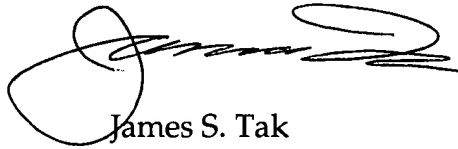
To clarify this distinction, Applicants have amended claims 3 and 16 to specify the hollow tube as a hollow flow tube. Furthermore, claim 3 has been amended to indicate a "first hollow flow tube" and a "second hollow flow tube" to distinguish the components of the glow discharge ionizer and glow discharge detector respectively. References to "hollow tube" have also been amended in dependent claims 4 and 6 for consistency.

For the aforementioned reasons, it is respectfully submitted that independent claims 3 and 16 are allowable, especially as amended for clarification. And it is also submitted that claims 4 and 5 are also allowable as being dependent on allowable base claim 3. Furthermore, it is respectfully submitted that the allowability of independent claim 3 also overcomes the objections to dependent claims 6-13.

Summary

Applicant respectfully submits that claims 3-13 and 16-24 are in condition for allowance. Applicants respectfully request allowance of claims 3-13 and 16-24. In the event that the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, he is respectfully requested to initiate the same with the undersigned at (925) 422-7274.

Respectfully submitted,



Dated: August 26, 2004      By:

James S. Tak  
Attorney for Applicant  
Registration No. 46,367

Lawrence Livermore National Lab  
7000 East Avenue, L-703  
Livermore, CA 94550  
TEL: (925) 422-7274  
FAX: (925) 423-2231